Atty. Dkt. No. 02CR146/KE (047141-0294)

Amendments to the Claims:

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This listing of claims will replace all prior versions, and listings, of claims in the

Application:

Listing of Claims:

1.   (Currently Amended) A communications system, comprising:

a plurality of transceiver nodes configured to utilize a time division multiple access structure to communicate between the transceiver nodes, each transceiver node generating congestion metric information based on the utilization of a link to each of its neighbors; ~~and~~

the time division multiple access structure including a plurality of time slots during which the transceiver nodes are configured to communicate data cells, the data cells being transmitted from a transmission queue, the data cells including routing information and the congestion metric information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link; a monitoring signal of a processor buffer availability; and a monitoring signal of priority queues capacity.

2.   (Original) The communication system of claim 1, wherein the congestion metric information is generated by a channel access subsystem.

3.   (Previously Presented) The communication system of claim 1, wherein the cell counts are transmitted in unicast and broadcast allocated slots.

4-6.   (Cancelled)

7.   (Previously Presented) The communication system of claim 1, wherein the congestion metric information is further based on the availability of unallocated slots.

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8.   (Currently Amended) A method of propagating congestion information in a transmission system, the transmission system comprising transceiver nodes, comprising:

measuring by a node, the utilization of each of the links to each of its neighbors;

generating congestion metric information based on the link utilization;

combining the congestion metric information with routing information;

transmitting the congestion metric information and routing information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link; a monitoring signal of a processor buffer availability; and a monitoring signal of priority queues capacity.

9.   (Original) The method of claim 8, wherein the congestion metric information is provided as one of a predetermined number of states.

10.   (Original) The communication system of claim 9, wherein the predetermined number of states is four (4).

11.   (Original) The communication system of claim 8, wherein a route management subsystem disseminates the congestion metric information.

12.   (Original) The communication system of claim 8, wherein a flow control subsystem of a second node may utilize the congestion metric information when received by the second node.

13.   (Original) The communication system of claim 8, wherein the congestion metric information and routing information is transmitted by a route management subsystem.

14.   (Original) The communication system of claim 8, wherein the congestion metric information is generated by a channel access subsystem.

15.   (Original) The communication system of claim 8, wherein the transmission system is a time division multiple access (TDMA) system.

16.   (Currently Amended) A radio transceiver propagating congestion information in a radio network system, the radio network system comprising radio transceiver nodes, comprising:

a means for measuring by a node, the utilization of each of the links to each of its neighbors;

a means for generating congestion metric information based on the link utilization;

a means for combining the congestion metric information with routing information;

a means for transmitting the congestion metric information and routing information; and

wherein the congestion metric information is based on comparing cell counts against a total capacity of each link; a monitoring signal of a processor buffer availability; and a monitoring signal of priority queues capacity.

17.   (Original) The radio transceiver of claim 16, wherein the congestion metric information is provided as one of a predetermined number of states.

18.   (Original) The communication system of claim 17, wherein the predetermined number of states is four (4).

19.   (Original) The communication system of claim 16, wherein a route management subsystem disseminates the congestion metric information.

20.   (Original) The communication system of claim 16, wherein a flow control subsystem of a second node may utilize the congestion metric information when received by the second node.

21.   (Original) The communication system of claim 16, wherein the congestion metric information is generated by a channel access subsystem.

22.   (Original) The communication system of claim 16, wherein the radio network system is a time division multiple access (TDMA) system.

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